

Message

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To: ORD-ALL Feds and NonFeds and RSLs [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=2c735272eef941588aefd9a05ed28823-ORD-ALL Feds and NonFeds and RSLs]
CC: Carter, Bobbi [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=f16dcafe85fc418ebd1651be2e8ab82d-Carter, Bobbi]; Barnett, Felicia [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5773b45cae5142fe950861dd6146f1e9-Barnett, Felicia]; Lincoln, Larry [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=8248d03a1441414db7754db201ebec45-Lincoln, Larry]; Liljegren, Jennifer [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c7098a838cd34f75b8878571fe95d939-JLiljegr]; Taylor, Dawn [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b984d00ec06544e498ee5d986f97047c-Taylor, Dawn]; Gettle, Jeaneanne [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=d8e72aa7e1894faea44006fd9f22b637-Gettle, Jeaneanne]; Klinger, Adam [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=346d5466632f4967adc7169c8d2ce4fd-Klinger, Adam]; Fan, Shirley [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=cdeba1df9599435cb7401d0a65be7cda-Sfan02]; Pollard, Solomon [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=16cdf700f8024145847a2770b84abae3-Pollard, Solomon]; Clarage, Meredith [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ee9504437be545489f518710a5e80e68-Clarage, Meredith]
Subject: Weekly Compass: March 27, 2018



Weekly Update: 3/27/2018

Welcome to the Weekly Compass, your gateway to information about recent and upcoming ORD activities. If you have ideas for the Weekly Compass, please send them to the editors. To see past issues, visit the Weekly Compass archive on ORD@work.

Weekly Note from Jennifer

ORDers- Last week, Chris Robbins, Richard Yamada and staff participated in the ECOS Spring Meeting in St. Paul, Minnesota, with 43 states attending. They had a productive meeting with the Environmental Research Institute of the States (ERIS) Board. ORD participated in the ERIS Research Expo and hosted four tables highlighting our work demonstrating our commitment to cooperative federalism including resources to support states, ongoing work related to PFAS, the Cyanobacteria Assessment Network (CyAN) mobile application and the Chemistry Dashboard, and Remediation-Restoration-Revitalization (R2R2R) cleanup in the Great Lakes Area of Concern. Many thanks to Andy Gillespie and Dale Hoff, Jon Haselman and Tom Hollenhorst for their participation at the Expo event (see photos below.)

Last Friday, the President signed FY 2018 Consolidated Appropriation (omnibus). The omnibus appropriates \$8.1 billion dollars to EPA, with \$713.8M in the S&T appropriation. The S&T appropriation for FY 2018 is equal to the FY 2017 appropriated amount. ORD's portion of the appropriation is estimated to be \$498.5M. (note: this does not include a rescission that is also part of the bill). We are expecting OCFO to send final guidance as to how we will implement the bill's provisions by the end of this week.

This week, Richard Yamada will attend the 27th Annual Sustainability & EHS Symposium in Cincinnati. Also, as part of our implementation of a Lean Management System, ORD will have its monthly business review.

Finally, I appreciate your dedication to supporting the needs of our EPA, state, and tribal partners. That work is really starting to pay off. -Jennifer



L to R: ERIS President and VA DEQ Director David Paylor testing out the CyAN Android mobile app along with Bill Holman (ERIS) and 2 scientists from NHEERL's Duluth lab (Tom Hollenhorst and Jon Haselman). The app uses satellite data to map the location of cyanobacterial harmful algal blooms in fresh and coastal waters across the U.S.



L to R: Incoming ECOS Executive Director Sam Sankar with Paul Mercer (ME) and IOAA's Chris Robbins at the ERIS Research Expo.

Quick Updates

- No Fear Act Training is now available, training must be done by September 30
- Don't forget to check out the open opportunities on Talent Hub!
- You can read the This Week @ EPA newsletter [here](#).
- Upcoming webinars:
 - CSS Science Webinar Series: HIGH-THROUGHPUT TRANSCRIPTOMICS (HTTr): Tuesday, March 27, 1-2 pm ET
 - Small Water Systems Research Webinar: Water Security and Resiliency: Tuesday, March 27, 2-3 pm ET
 - Air and Energy StRAP Refresh informational webinar: Wednesday, March 28, 1-2:30 pm ET
 - EPA Tools and Resources Webinar: Cost-Effective Treatment Technologies for Small Drinking Water Systems: Wednesday, March 28, 3-4 pm ET
 - CompTox Communities of Practice: The CompTox Chemistry Dashboard v2.6 – Delivering Improved Access to Data and Real Time Predictions: Thursday, March 29, 11-12pm ET
 - ACE Centers' webinar: Yale/JHU SEARCH Center: Thursday, March 29, 1-2 pm ET
 - CSS AOPDD Webinar - Hill - qAOP models for murine lung cancer: Thursday, March 29, 3-3:45 pm ET
 - Diversity and Inclusion Day: Wednesday, April 4, 9-2 pm ET
 - A-E Connections Call: Wednesday, April 4, 11:30-12:30 ET
 - EPA-Wide IRIS Meeting: Wednesday, April 4, 2-3 pm ET

Faces of ORD: IOAA's Alan Hecht

In the Lab:

Village Green Report and Training Video

The Village Green team, led by Sue Kimbrough (NRMRL), made great strides in developing a Village Green report and video to provide partners and other interested parties with documentation on the building, operation, and maintenance of a Village Green bench. These two products will be excellent resources to transition the Village Green benches to full operation and maintenance by the project's partners and increase public access to this project. The video also is posted on the EPA Air Sensor Toolbox site on the 'Resources' page under 'Videos', and the report will be made available on the National Service Center for Environmental Publications (NSCEP) this week. The Village Green Project is a community-based activity demonstrating the capabilities of new real-time monitoring technology and sharing these data with nearby residents and citizen scientists to increase awareness about local air quality. The prototype station in Durham, NC has been operating since June 2013 and seven other benches are located in cities across the US.

Enter Your FY18 Second Quarter Data into TechTracker This Week

The second quarter for Fiscal Year 2018 (FY18) is coming to an end, so it will soon be time to develop the second quarterly report of TechTracker data. To ensure that all FY18 second quarter data is in the system prior to developing the report, we are asking that everyone create any remaining entries for technical support performed during the second quarter (January 1 - March 31, 2018) or add hours to existing entries as necessary for additional time spent on those tasks in that timeframe. Please have all applicable technical support hours for second quarter work entered into TechTracker by March 31.

IRIS SAB Meeting

The Science Advisory Board (SAB) Chemical Assessment Advisory Committee Augmented for the Review of EPA's draft ETBE and tBA Assessments is holding two public teleconferences on March 22nd and 27th. On March 22nd from 9-12 and today from 2:00 to 4:00 PM they are reviewing the draft SAB peer review report entitled, "SAB Review of EPA's Draft Toxicological Review of tert-Butyl Alcohol (tert-Butanol)." The draft ETBE/tBA report and meeting agenda have been published on the SAB website.

Wildfire Smoke Technical Support

Last week, NCEA's Jason Sacks provided scientific and technical support to Pete Lahm, Smoke Manager, U.S. Forest Service on ongoing discussions with state and local air quality directors in Region 10 on the health effects of short-term PM2.5 exposures. Jason also provided support on the current state of the science for sub-daily exposures to PM2.5 that could inform the potential health impacts of 1- 3 hour exposures to wildfire smoke, which collectively support the development of state-level Smoke Management Plans.

Disaster Response Assistance in Puerto Rico, March 27-April 14

NRMRL's Jason Bernagros will be deployed to Puerto Rico to assist with continued disaster response and recovery efforts from the hurricanes. Jason will be acting as a Community Involvement Coordinator for OLEM's Emergency Operations Center. He will assist in communicating with community members about their response and recovery needs.

Community Meetings on Next Generation Measurements Project, Louisville

This week, NRMRL's Eben Thoma, Rachelle Duvall, and Ingrid George will meet with EPA Region 4 and Louisville (KY) Metro Air Pollution Control District (LMAPCD) representatives to discuss progress on the Rubbertown Next Generation Emissions Measurement (NGEM) Demonstration Project. NRMRL will also host informational meetings with community groups, industry, and other researchers. During one of these community meetings, Rachelle Duvall will discuss potential implementation of a novel citizen science project on odor tracking. LMAPCD will use the information from these community meetings to further refine and communicate the next steps of the project.

Site Visit to Fort Riley, KS

This week, NRMRL's Randall Ross and Steve Acree will measure groundwater elevations and perform maintenance on groundwater monitoring equipment associated with a stormwater recharge gallery and permeable parking lot on the Army base. Contractors will be onsite to collect samples from wells, surface water, and pore water. The gallery and monitoring system are part of a green infrastructure stormwater management project at the elementary school on base. This NetZero project, performed in conjunction with the Army and Region 7, will provide essential information regarding the movement of water and dissolved constituents through pervious surfaces and their interactions with the aquifer.

NCEA Regional Support

The Superfund Health Risk Technical Support Center (STSC) received a request from Region 1 for assistance in identifying toxicity values and associated documents for 16 chemicals detected in a Resource Conservation and Recovery Act (RCRA) Corrective Action Site, Cummings Center, in Massachusetts. The STSC also responded to a request from Region 2 for assistance in evaluating the use of technical chlordane as a surrogate for cis- and trans-chlordane for the evaluation of oral noncancer toxicity. NCEA scientists applied an expert-driven read-across approach to determine the suitability of the proposed surrogate based on three similarity contexts (structure, toxicokinetics, and toxicity).

EPA's EcoService Models Library Goes Live

EPA's EcoService Models Library (ESML) is now live and available for use. This online database allows users to find, examine, and compare ecological models that can be used to estimate the production of ecosystem goods and services. While ecological models are useful in helping us understand the processes ecosystems use to provide many goods and services, this information tends to be scattered among sources and therefore, might not be readily available to inform decision makers. The ESML helps solve this problem by bringing together detailed descriptions for over 150 ecological models. This currently includes over 50 descriptors of purpose, approach, and environmental use for each model. While modeling expertise is not required to explore the ESML, the site is designed to help analysts and model users get information about and compare ecological models. This will help decision makers, such as community planners, make informed decisions about which ecological models they should use to understand how their decisions will impact ecosystem goods and services. In the future, the ESML team will add additional ecological models to the site to reflect the state of the science and address user needs. The team is eager to hear from users on their experiences using the site.

Health Effects of PFAS

Today, ORD will meet with the North Carolina Department of Health and Human Services, NIH, CDC, and the New Jersey Department of Environmental Protection to discuss the potential health effects of per- and polyfluoroalkyl substances (PFAS). This meeting is following up to an October 11th meeting, and will allow for each group to provide updates on the projects they are working on that will fill knowledge gaps on these compounds.

EPA Tribal Science Council Outreach

Last week, Amy Shields (Region 7 RSL) hosted NERL's Dr. José Zambrana as he visited with the Sac and Fox Nation of Missouri in Kansas and Nebraska and with EPA Region 7. Dr. Zambrana is the EPA Tribal Science Council Co-Chair and met with the Tribal Co-Chair, Carol Kriebs, of the Sac and Fox Nation. The purpose was to conduct planning outreach for the Tribal Science Council and to learn about the Tribe's innovative approaches to addressing environmental challenges. Dr. Zambrana also met with regional science and tribal program staff and visited Haskell Indian Nations University.



L to R: Jim Callier (Region 7), Ian Gambill (Navajo Nation Haskell Student), Dr. Tara Marriage (Haskell Adjunct Professor), Dr. Jose Zambrana (NERL), Dr. Amy Shields (EPA R7 RSL), and Dr. Dan Wildcat (Haskell Professor and Administration).

Flint Enforcement Team Meeting

As ORD's representative, NRMRL's Tom Speth participated in the Flint National Enforcement Team meeting led by Region 5. At the meeting, progress was evaluated toward compliance with the Safe Drinking Water Act Section 1431 Emergency Order and First Amendment. Enforcement order requirements, current public water system status, and future source water plans were discussed.

Incorporating Human Metabolism into High-Throughput Test Systems

NCCT postdoctoral fellow Danica DeGroot and scientist Steve Simmons were lead authors on a new publication demonstrating the ability to retrofit high-throughput in vitro assays with relevant chemical metabolism. Previously, most cells used in high-throughput in vitro assays lack the enzymes responsible for normal chemical metabolism that occurs in the body. The lack of metabolism may result in missing chemicals that are metabolized to a more toxic form. The new research expands on methods developed in the stem cell field to insert multiple genes involved in chemical metabolism into cells without causing the cells of interest to die. The scientists demonstrated application of the new method by testing a subset of environmental and commercial chemicals with and without incorporating relevant chemical metabolism. The method solves some of the main problems in the in vitro testing field that were the subject of the Transforming Tox Testing crowd-sourcing challenge supported by both the EPA and NIH. The research was part of the Collaborative Research and Development Agreement with Unilever to advance non-animal toxicity testing and risk assessment methods.

Effect of Hydraulic Gradient and Pattern of Conduit Systems on Tracing Tests

On March 13th, the journal *Groundwater* accepted and published online a manuscript by NCEA's Malcolm Field and coauthors. This manuscript, which is entitled "*The Effect of Hydraulic Gradient and Pattern of Conduit Systems on Tracing Tests: Bench-Scale Modeling*," describes how tracer breakthrough curves provide valuable information about the traced media, especially in inherently heterogeneous karst aquifers. The research confirmed the undeniable role of hydrogeological setting (i.e., hydraulic gradient and conduit system) on the shape of the breakthrough curves.

Superfund and Technical Support

- Last week, Rob Weber (OSP) met with Region 7 to discuss sites with potential PFAS contamination, which will help regional staff develop a plan for evaluating sites for PFAS contamination.
- Last week, Diana Cutt (OSP) hosted a Superfund Science Seminar for staff from OLEM and regional offices.
- Last week, Kira Lynch (OSP) met with Region 10 staff and representatives of the potentially responsible party to discuss additional site characterization needs and the updated conceptual site model for the Bremerton Gas Works Superfund Site in Bremerton, WA. The site is a former manufactured gas plant where industrial activities have led to contamination of groundwater, soils, and sediments with VOCs, metals, and polycyclic aromatic hydrocarbons (PAH).
- Last week, Fred Hauchman, Kacee Deener, and Felicia Barnett (OSP) participated in the ORD Technical Support Center (TSC) Summit in Cincinnati, OH. The Summit includes

discussions about the current status of the five ORD TSCs, technical support mission measures, and the future status of the Centers.

Beijing Municipal Environmental Protection Bureau

Earlier this month, NRMRL's Tom Long and Rich Baldauf presented a summary of motor vehicle emissions testing for passenger cars and heavy-duty trucks, and led a tour of NRMRL's laboratory facilities in RTP. The discussion included a review of U.S. emission standards, vehicle testing methods, and integration of emissions research and policy. This meeting was coordinated by OAR for Xin Liu, Deputy Director of Regional Air Management, Beijing Municipal Environmental Protection Bureau.

NRMRL Provided Review on DOE Geothermal Energy Analysis Report

DOE requested that EPA conduct a review of their analysis of the potential for geothermal energy penetration in the electric and non-electric (i.e., heating/cooling) sectors. NRMRL's Carol Lenox led a review team. The report identifies key variables that impact potential geothermal deployment and assesses a range of future deployment scenarios and associated environmental and economic attributes. DOE is specifically interested in EPA's review of the impacts section, which includes discussion on water use and air emissions.

Supporting Clean Water Act Implementation in Washington and Oregon

Last week in Olympia, WA, NHEERL scientists participated in an expert panel meeting organized by EPA's Office of Water for state and local officials from WA and OR, and environmental scientists from King County, WA. The group is working to develop a 'Biological Condition Gradient' (BCG) for benthic macroinvertebrates in streams of the Puget Lowlands, WA, and Willamette Valley, OR, ecoregions. The BCG framework can assess changes in condition of aquatic communities by assessing what species live in waters, and their ecological functions. It is intended to help states develop biological criteria, identify both high and low quality waters for potential protection or remediation, and provide information to the public about the potential impact of management decisions on water quality. The Framework has already been developed in Alabama, Minnesota, and several states in New England. NHEERL's Dave Peck serves on the expert panel, and Ryan Hill demonstrated several products and tools, such as StreamCat, which can be queried to provide water quality information to complement the BCG framework.

Report to Great Lakes Fishery Commission on Condition of Lake Superior Food Web

Last week, in Ontario, Canada, NHEERL's Michael Sierszen attended the Upper Lakes Meetings of the Great Lakes Fishery Commission to discuss the condition of the Lake Superior food web. Researchers found that there has been no apparent change in the potential of the lower food web to support productive fisheries in Lake Superior. The assessment used monitoring data from EPA's Coordinated Science and Monitoring Initiative sampling, and the Great Lakes National Program Office's Biology Monitoring Program. Researchers examined the abundance and biomass of phytoplankton, zooplankton, the benthic invertebrate *Diporeia*, and the migratory macroinvertebrate *Mysis*, and found natural variability over time, but overall lower trophic levels in good condition and stable. The meeting was attended by scientists and resource managers from the U.S., Canada, and Tribes who are working on lakes Superior, Michigan, and Huron.

Grantee Publication: In-vehicle Exposures to Air Pollution

People in a motor vehicle in traffic are exposed to a variety of air pollutants, but that exposure isn't always accounted for in environmental health studies. Investigators at the STAR-funded

University of Washington Center for Clean Air Research are looking to understand the in-vehicle contribution to individual-level pollution exposures. To test this, they conducted a 2-week monitoring study of exposure to nitrogen dioxide (NO₂), including novel in-vehicle sampling, in a subset of the Multi-Ethnic Study of Atherosclerosis and Air Pollution (MESA Air) cohort in two cities: Winston-Salem, NC and Los Angeles, CA, in both summer and winter. The results have been recently published in the *Journal of Exposure Science and Environmental Epidemiology*. Participants spent most of their time indoors and, on average, 4.4% of their time (63 minutes per day) in a motor vehicle. The study found that while the average NO₂ concentration was 5.1 parts per billion (ppb) indoors, it was an average of 32.3 ppb in-vehicle during drives. On average, indoor exposure contributed 69% and in-vehicle exposure contributed 24% of participants' ambient-source NO₂ exposure. Incorporating an indoor air filter in the vehicles lowered NO₂ exposure by an average of 5.6 ppb. In-vehicle exposure was more significant not only for participants who drove the most, but also for participants residing in areas with lower outdoor air pollution. The investigators suggest that in-vehicle exposures should be included in epidemiologic studies to avoid exposure misclassification and an underestimation of air pollution exposure.

Grantee Publication: Inner City Children's Exposure to PAH

Researchers from the NIEHS/EPA Children's Center at Johns Hopkins University examined time spent indoors and outdoors as predictors of exposures to airborne Polycyclic aromatic hydrocarbons (PAH), and measured levels of 1-OHPG (a urinary biomarker of PAH exposure) in children aged 5-12 years from Baltimore. Time spent in non-smoking homes was associated with decreased urinary 1-OHPG concentrations, whereas time spent in smoking homes was associated with increased 1-OHPG. Time spent outdoors was associated with increased urinary 1-OHPG concentrations. Seasonally, spending time outdoors in summer was associated with increased 1-OHPG concentrations in boys only. Since boys spent twice as much time outdoors in the summer as girls, they were likely exposed to more PAHs. The results suggest that secondhand smoke and outdoor air pollution contribute to internal dose of PAH in children. This is the first study examining, seasonally, environmental predictors of 1-OHPG concentrations in inner city children.

Paper Published on Arsenic and Iron Removal from Groundwater

NRMRL's Darren Lytle, Tom Sorg, Lili Wang, and Abraham Chen were authors on a paper, "Arsenic/Iron Removal from Groundwater with Elevated Ammonia and Natural Organic Matter," published in March 2018 issue of the *Journal of the American Water Works Association*. This paper discusses evaluation of an iron removal process consisting of permanganate oxidation and greensand filtration in a municipal water treatment plant in Illinois. The system was shown to be effective in removing soluble arsenic from groundwater that also contained elevated ammonia and natural organic matter. This work was conducted under EPA's former Arsenic Treatment Technology Demonstration Program.

In the Office:

EPA's 2018 Women's History Month Event Tomorrow

"Honoring Women Who Paved the Way" is tomorrow 10-11 a.m. EDT. In person: WJC-East Room 1153. EPAtv is available using only Internet Explorer while on the EPA network and cannot be accessed remotely. The video recording is expected to be available on EPAtv On-Demand on Thursday. For additional information on this event, please contact Jannette Stewart stewart.jannette@epa.gov. People needing reasonable accommodations should contact Kristin P. Tropp at 202-559-0006 or tropp.kristin@epa.gov.

Implementing Lean Management in ORD

Last month, Chris Robbins talked about EPA's plan to institute the Lean management approach across 80% of the Agency over the next few years. EPA's senior leadership has given us a lot of flexibility to use the Lean management approach in a way that best fits our unique needs as a research organization. Last week, a group of representatives from across ORD met to discuss how we should move forward and I am very excited to share that NCEA, NHSRC, OARS, OPARM, and NERL have agreed to learn about Lean management over the next few months and pilot it within their organizations. From the lessons we learn in the pilots we will have a much better sense of how to use Lean effectively across ORD. To learn more about Lean management in general take a look at these [videos](#).

At the core of the Lean approach is the identification of the key processes necessary to get a project or job done, seeing which can be improved, and then implementing solutions/improvements. If you have an experience at work that you think can be improved to increase the efficiency of your work – jot it down as a potential process to be leaned, share it with your managers, submit it to the suggestion box. Lean management is coming to ORD and the more you have thought about how it can help us, the better. If you have any questions or concerns about Lean in general, please feel free to reach out to a member of the ORD Lean Implementation Committee: Chris Robbins, Michael Slimak, Stefan Silzer, Sean Paul, Norman Adkins, Mark McPherson, Janice Brown, Anna Champlin, Brent Eischen, Marty Chintala, Dale Perry, Brian Kleinman, Byron Ifediora, and Dayna Gibbons.

Accolades:

NRMRL Scientist Receives 2017 Journal of Environmental Quality Outstanding Reviewer Award

Jake Beaulieu received the 2017 Outstanding Reviewer Award from the *Journal of Environmental Quality (JEQ)*. Jake served as an Associate Editor for JEQ from 2011 to 2017 and oversaw the peer review of manuscripts addressing agricultural best management practices, biogenic gas dynamics in soils and waters, and nutrient processing in streams and rivers. The award will be announced in an upcoming issue of the Crop Science Society of America's newsletter, CSA News.

Ecoregion Maps Continue to Receive Public Praise

SHC maintains a series of "Ecoregional maps" on EPA's website which are "Designed to serve as a spatial framework for the research, assessment, and monitoring of ecosystems and ecosystem components, ecoregions denote areas of similarity in the mosaic of biotic, abiotic, terrestrial, and aquatic ecosystem components with humans being considered as part of the biota." The site generates considerable attention in the form of public inquiries, including much praise. An example received this week: "Just wanted to say thank you for the fantastic ecoregion maps and data! It has helped me as an environmental educator and as a traveler."

In the News:

EPA Announces P3 Recipients

EPA announced 31 P3 (People, Prosperity, and the Planet) Phase I grants on March 22. Interdisciplinary teams of college students from universities across the U.S. are receiving

funds of up to \$15,000 to research, develop, and design innovative projects that address real world challenges involving all areas of environmental protection and public health. Projects address four topic areas including Energy, Built Environment, Materials and Chemicals, and Water. These Phase I grantees are now eligible to apply for a P3 Phase II grant of up to \$75,000 during the next Phase II Solicitation cycle. The 14th Annual National Sustainable Design Expo featuring EPA's People, Prosperity and the Planet (P3) student team is coming up next month! More than 30 P3 university and college teams are gathering on April 7-8 at the USA Science and Engineering Festival in Washington, D.C., to showcase their innovative designs and solutions to real-world environmental and public health challenges. Projects from this year's P3 teams include innovative ideas like harnessing solar power to disinfect drinking water and using beetles as a way to degrade Styrofoam waste.

Grant Announced to UNC Chapel Hill

Last week, EPA announced almost \$800,000 in funding from ORD to research lead in well water and its potential impact on children's developmental health. Working with the State of North Carolina and using healthcare, education, and water infrastructure data for their research, the UNC team will assess the association between lead in private well water and children's blood lead levels. Since private drinking water wells are not routinely monitored for lead, the funds provided to UNC will enhance their current research efforts, which includes a program for evaluating lead in drinking water at childcare centers in schools.

East Fork Watershed Cooperative (EFWCoop) Supports USDA

The U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) announced that \$300,000 in funding has been allocated for agricultural conservation practices in the East Fork Little Miami River watershed. This new funding opportunity started when a NRCS state conservationist learned about two existing EFWCoop projects during a tour of EPA's Experimental Stream Facility (located in Clermont County, OH) in September. After the tour, NRCS released the additional funding via its Environmental Quality Incentives Program. Through this opportunity, agricultural producers may receive financial help with conservation practices such as cover crops, nutrient management, conservation tillage, filter strips, and more. The application period is open through April 20. NRMRL's Chris Nietch is quoted in the article from *The Clermont Sun* highlighting the funding opportunity.

SBIR Company Acquired

Lucid Design Group, an EPA SBIR-funded company, is working to develop software tools that turn multi-colored and internet-connect LEDs, such as the Philips Hue and LIFX, into "Building Orbs," aimed at reducing electricity use in commercial buildings by providing ambient color-based feedback to building occupants based on their current electricity usage. Lucid, which began nearly 15 years ago as an EPA People, Prosperity, and the Planet (P3)-funded research team from Oberlin College, was acquired by Acuity Brands in February. It will continue to operate independently, but is now able to do so on a much larger platform and with more resources. To learn more about this development, see Lucid's blog post or press release.

In the Community:

EPA-RTP STEM Outreach Program

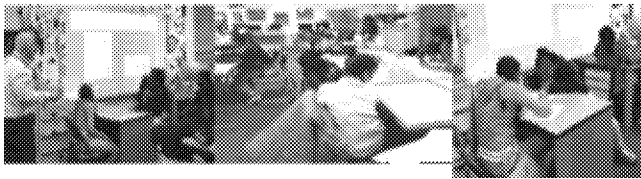
- Yesterday, the Program presented hands-on air quality activities at the World's Fair event at North Chatham Elementary School in Chapel Hill.

- Tuesday, the Program will lead 8th grade students from Durham School of the Arts in hands-on environmental activities at the Durham Public School's Hub Farm.
- Tomorrow, the Program will lead a hands-on activity about water quality during its 4th session for the spring apprenticeship for Citizens Schools at Lowes Grove Middle School in Durham.

NHSRC Outreach

NHSRC's Dr. Sang Don Lee was invited by East Chapel Hill High School in NC to talk with students about his experience in the Fukushima nuclear power plant disaster cleanup. Since 2013, Dr. Lee has been supporting the Government of Japan's efforts to remediate off site areas impacted by the 2011 accident, providing technical advice as an invited remediation expert for the US Embassy of Japan and International Atomic Energy Agency. In April, he will present his Fukushima observations and lessons learned to the students and teachers.

On March 20th, EPA-Cincinnati mentors visited their Adopt A Class, 5th-grade science class to discuss ecosystems (see photos). The class and mentors participated in a game called "*I Have, Who Has?*" in which they learned ecosystem terms such as herbivore, autotroph, consumer, and food web. The mentors also provided a crossword puzzle about ecosystems to reinforce the newly learned terms.



Faces of ORD: IOAA's Alan Hecht



Name: Dr. Alan D Hecht

Job/Position: Director for Sustainable development

L/C/O or Program Office: IOAA in Washington, DC

1. When did you start at EPA? I joined ORD in 2003. I started in EPA in 1989 as Deputy Assistant Administrator and was Acting Assistant Administrator in the Office of International Activities. From 2001 to 2003, I was at the White House CEQ and NSC as lead in planning for the 2002 Johannesburg Earth Summit. Returning to EPA in 2003, I wanted to advance the concept of sustainability and joined ORD in a newly created position as Director for Sustainable Development. One of the first things I did was create the P3 student grant program. Since

joining ORD I have been pushing the concept of sustainability and resilience and have written many papers promoting sustainability science.

2. What's the most interesting thing about your job? Most interesting and most challenging is affecting cultural change and moving EPA toward a more sustainable approach to management. This has not been an easy task—as shown in my recent paper on the history of sustainability science at EPA -- but a necessity for society.

3. What's the most interesting thing in your workspace? Pictures of me with EPA's Bill Reilly and Al Gore in Rio in 1992 and President Bush in 2003. One exciting award given to me on March 26 is a life time achievement award for advancing sustainability.

4. What's your favorite thing to do (besides come to work)? Two things: hiking in national parks and writing. I have published 30 papers since joining ORD in 2013. This is often done in cooperation with many colleagues and I thank them for their help and editing. I am also a big supporter of partnerships and collaboration and enjoy working with many colleagues in the business and NGO world. One key paper written for the Rio +20 Summit was organized with business, government, academic and International colleagues to illustrate the theme of a new era of business-government collaboration.

5. What's your favorite lunch spot? I go to Market to Market (M2M) in DC every day, often with colleagues.

6. If you could have one superpower, what would it be? Not getting any older! I have spent 40 years in government, including positions at NSF, NOAA and of course EPA. Getting old, but I want to keep mentally alert!

7. What is your favorite thing about spring? Flowers blooming and warming temperatures.

Editor's Note: Alan Hecht will be retiring effective April 3rd after a 42-year career dedicated to public service. Alan's work has spanned eight different Presidential Administrations and touched a host of federal and international agencies and programs. A central theme throughout his career has been his unwavering leadership in support of sustainability. Alan has cultivated partnerships throughout EPA, the federal scientific community, and academia, and is a sought-after expert from private companies looking to embrace sustainability concepts into their business practices while they model cooperative environmental stewardship. He has written or co-written many papers, and has recently began a book that will continue to present the sound, scientific case for fully aligning environmental protection, public health, and sustainability for a resilient, vibrant economy. We wish him well as he completes his book and tackles other challenges.